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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,179

09/12/2005

Laurent Blonde

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EXAMINER

FENWICK, WARREN K

ART UNIT

PAPER NUMBER

2809

MAIL DATE

DELIVERY MODE

06/12/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/532,179

Applicant(s)

BLONDE ET AL.

Examiner

Warren K. Fenwick

Art Unit

2809

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/12/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4/21/05.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statements (IDS) submitted on 04/21/2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS are being considered by the examiner.
2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." However, since the references listed in the specification are also listed on the applicant's IDS (form USPTO 1449), those references have been considered by the examiner.

### ***Foreign Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Specification***

4. Receipt is acknowledged of applicants' preamendment, which added headings for the specification.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. **Claims 1-12** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and definitely claim the subject matter which applicant regards as the invention.

7. **Claim 1** recites, "A system for displaying images with the aid of a spatial light modulator, wherein it comprises: ... a spatial light modulator ...". **Claim 1** needs to be corrected to read, , "A system for displaying images with the aid of a spatial light modulator, wherein **the system** comprises: ... **the** spatial light modulator ...".

8. **Claims 2-12** are similarly rejected since they contain all the limitations of claim 1.

***Claim Rejections - 35 USC § 102***

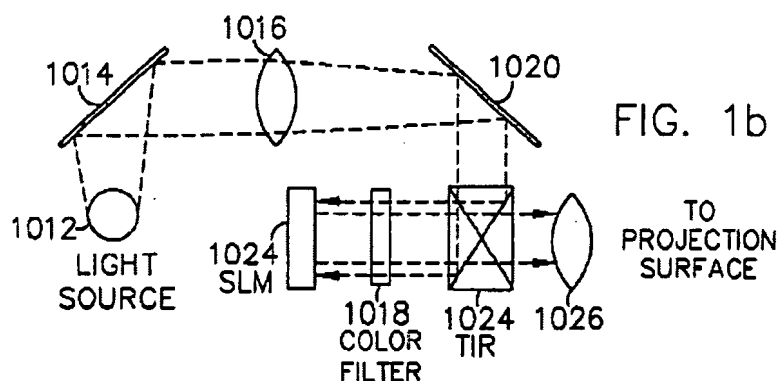
9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

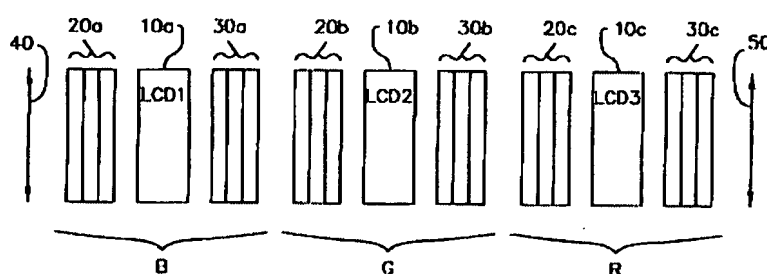
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. **Claims 1-12** are rejected under 35 U.S.C. 102(b) as being anticipated by Sharp et al. (U. S. Patent # 6,273,571 B1).

11. Regarding **claim 1**, Sharp et al. disclose a system for displaying images with the aid of a spatial light modulator wherein it comprises:



- a light source (Figure 1b, element 1012) emitting an illumination beam;
- a spatial light modulator (Figure 1b, element 1024) comprising a matrix of pixels controlled by video control signals corresponding to a succession of image frames to be displayed;



- a matrix filter (Figure 20, elements 10a-c (liquid crystal displays), 20a-c (retarder stacks), and 30a-c (retarder stacks)) formed of a mosaic of elementary filters of various colors, illuminated by said illumination beam and transmitting a spatially filtered color beam to the spatial light modulator,

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14. Regarding **claim 4**, Sharp et al. disclose the system for displaying images, wherein said mosaic is monodimensional and includes only one column of elementary filters of various colors (Figure 20, elements R, G, B).

15. Regarding **claim 5**, Sharp et al. disclose the system for displaying images, wherein said mosaic is bidimensional and in that said elementary filters are arranged in several rows and several columns (column 26, lines 27-32).

16. Regarding **claim 6**, Sharp et al. disclose the system for displaying images, wherein said mosaic is formed by the repetition of blocks of elementary filters, and in that these blocks exhibit identical contours and are each composed of at least two elementary filters of different colors (column 26, lines 27-32).

17. Regarding **claim 7**, Sharp et al. disclose the system for displaying images, wherein the system for displaying images, wherein said mosaic is an assemblage of identical patterns each comprising the same number of blocks and the same number of elementary filters of each color in each of the rows and in each of the columns of said pattern (column 26, lines 27-32).

18. Regarding **claim 8**, Sharp et al. disclose the system, wherein each sequence of displacements of the image of the filter on the entrance face of the spatial light modulator allows the successive illumination of each pixel of the spatial light modulator by all the elementary filters of one and the same block (Figure 20, elements R, G, B).

19. Regarding **claim 9**, Sharp et al. disclose the system for displaying images, wherein, during each image frame, each pixel of the spatial light modulator is illuminated successively by all the elementary filters of a first block under the effect of a

- means for producing an image of said filter on an entrance face of the spatial light modulator (column 9, lines 42-45);
- means of displacement for displacing said image of the filter on the entrance face of the spatial light modulator (column 12, lines 41-51), and
- a device for controlling these means of displacement, making it possible to control at least one sequence of displacements of the image of the filter during each image frame (column 11, lines 1-4).

12. Regarding **claim 2**, Sharp et al. disclose the system for displaying, wherein the dimensions and the position of each elementary filter are adapted so that the image of each of them on the entrance face of the spatial modulator covers a plurality of pixels (column 4, lines 47-55).

13. Regarding **claim 3**, Sharp et al. disclose the system for displaying images, wherein each displacement of a sequence corresponds to a multiple of the dimension of the image of an elementary filter on the entrance face of the spatial modulator (column 4, lines 47-55).

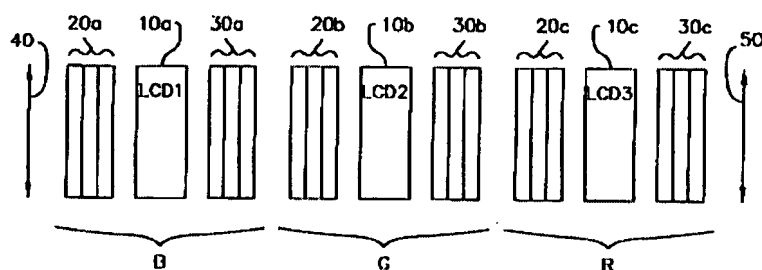


FIG. 20

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first sequence of displacements (Figure 20, elements R, G, B). then by all the elementary filters of at least one second block (column 26, lines 27-32) under the effect of at least one second sequence of displacements.

20. Regarding **claim 10**, Sharp et al. disclose the system for displaying, wherein all the sequences of displacements controlled by said control device are adapted so that the integration of the images of the filter that are obtained over the set of displacements of the sequence or sequences of each frame imparts a white colorimetry to the entrance face of the spatial light modulator (column 26, lines 22-32).

21. Regarding **claim 11**, Sharp et al. disclose the system for displaying images, wherein said first and at least second sequences of displacements are adapted so that the integration of the images of the filter that are obtained over the set of displacements of any one of these sequences imparts a nonwhite colorimetry to the entrance face of the spatial light modulator (column 26, lines 22-32).

22. Regarding **claim 12**, Sharp et al. disclose the system the system for displaying images wherein said control device possesses the characteristics of a plurality of different sequences of displacements making it possible to impart a white colorimetry to the entrance face of the spatial light modulator and in that it selects, from among this plurality, different sequences for successive frames (column 26, lines 22-32).

### ***Conclusion***

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references, made of record and not relied upon, are presented in the following paragraphs.

24. Welch et al. (U. S. Patent # 5,684,498) disclose a "Field Sequential Color Head Mounted Display With Suppressed Color Break-Up".

25. Bloom et al. (U. S. Patent # 6,215,579 B1) disclose a "Method and Apparatus for Modulating and Incident Light Beam for Forming a Two-Dimensional Image".

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Warren K. Fenwick whose telephone number is 571-270-3040. The examiner can normally be reached on Mon - Fri 9A to 5:30P, Eastern Time.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Assouad can be reached on 571-272-2210. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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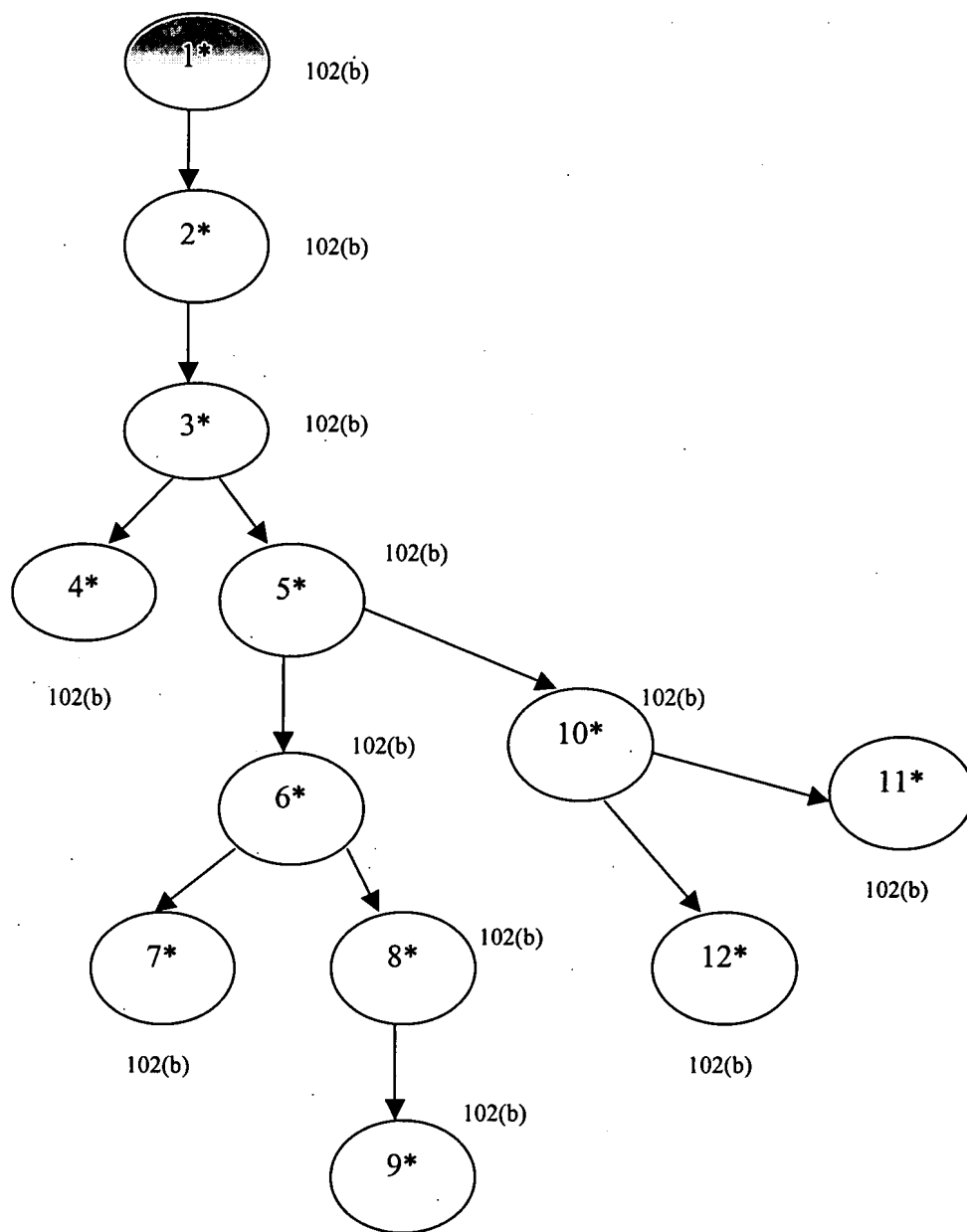
USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

WKF



N. DREW RICHARDS  
PRIMARY EXAMINER

## CLAIM TREE for 10/532,179



\* Sharp et al.